AGENDA TITLE:

Adopt Resolution Approving the Purchase of Padmount Transformers from HEES

Enterprises, Inc. of Astoria, Oregon and Howard Industries, Inc. of Laurel,

Mississippi (\$214,197.27)

**MEETING DATE:** 

February 16,2011

PREPARED BY:

Electric Utility Director

**RECOMMENDED ACTION:** 

Adopt a resolution approving the purchase of padmount

transformers from HEES Enterprises, Inc. of Astoria, Ore. and

Howard Industries, Inc. of Laurel, Miss. (\$214,197.27).

**BACKGROUND INFORMATION:** 

On October 6, 2010, the City Council authorized the advertisement of bids to procure padmount transformers to maintain inventory for replacement of damaged/old transformers in the distribution system.

On January 12, 2011, bids were opened with three suppliers submitting proposals, two of which were deemed responsive. Life-cycle costs (total purchase price plus cost of estimated power loss during the projected life of the transformer) were evaluated as shown on the attached summary. HEES Enterprises, Inc. of Astoria, Ore. and Howard Industries, Inc. of Laurel, Miss. submitted responsive bids with the lowest life-cycle cost as shown below:

12 each 37.5kVA, 1-Phase, 240/120V	HEES Enterprises, Inc.	\$18,778.95
12 each 75kVA, 1-Phase, 240/120V	HEES Enterprises, Inc.	\$26,582.85
3 each 75kVA, 3-Phase, 2081120V	Howard Industries, Inc.	\$13,046.74
2 each 112.5kVA, 3-Phase, 480/277V	Howard Industries, Inc	\$ 9,874.50
2 each 225kVA, 3-Phase, 480/277V	HEES Enterprises, Inc	\$14,816.10
2 each 300kVA, 3-Phase, 480/277V	HEES Enterprises, Inc	\$15,923.18
2 each 1000kVA, 3-Phase, 480/277V	HEES Enterprises, Inc	\$32,829.45
4 each 1500kVA, 3-Phase, 480/277V	HEES Enterprises, Inc.	\$82,345.50

FISCAL IMPACT: Procurement cost is \$214,197.27. Life-cycle cost is \$371,266.01.

**FUNDING:** 

Included in FY2010/11 Account No. 160.1496

Deputy City Manager/Internal Services Director

zabeth A. Kirklev

**Electric Utility Director** 

PREPARED BY:

Weldat Haile, Senior Power Engineer

EAK/WH/DB/Ist

APPROVED:

Konradt Bartlam, City Manager

Transformer Bid Evaluation					В	id Opening:	January 12, 20	11				
Padmount				Tax (factor):	1.0875		Driman	, Windings:	Three-Phase, 12	000 Valt 6	 ∩Hz Dolta (	Connected
1 dumount			No Load	Loss \$/watt:	3.75		i iiiiai j	willianigs.	Single-Phase, 12			
January 25, 2011				Loss \$/watt:	1.25				Olligie-i flase, 12	.000 Old. V	rye/0330 v	71t, 001 12
Surruary 20, 2011			Loud	- 2000 φ/ παιι.	1.20							
Bid Item 1: 37.5 kVA, 240/120 Volt, Single Ph	ase Pad					Nu	mber of units:	12			28	>1.5
	11.2	<b>.</b>	D :						1		11 1 1 1	
Vendor	Unit	Extended	Price	No Load	Load	No Load	Load	Cost of	Life Cycle	Delivery	Height	Impedance
	Price \$	Price \$	w/tax \$	Loss (watts)	Loss (watts)	Loss value	Loss value	Losses \$	Cost \$	(weeks)	(inches)	%
Hees Enterprises Inc. (Ermco Transformers)	1,439.00	17,268.00	18,778.95	88	389	3,960.00	5,835.00	9,795.00	28,573.95	8	28	1.800
Howard Industries Inc.	1,504.00	18,048.00	19,627.20		397	4,050.00	5,955.00	10,005.00		6-8		
CG Power System USA Inc.	No Offer	10,040.00	15,027.20	30	001	4,000.00	0,000.00	10,000.00	25,002.20	0.0	02	2.000 L
Did tem 2: 75 kVA 240/420 Velt Single Dhe	oo Dod					Ni	mb or of unito	10			20	-10
Bid Item 2: 75 kVA, 240/120 Volt, Single Pha	se rau,					NU	mber of units:	12			28	>1.8
Vendor	Unit	Extended	Price	No Load	Load	No Load	Load	Cost of	Life Cycle	Delivery	Height	Impedance
Vendoi	Price \$	Price \$	w/tax \$		Loss (watts)	Loss value	Loss value	Losses \$	Cost \$	(weeks)	(inches)	%
	1 1100 ψ	т пос ф	₩/ταλ ψ	Loss (watts)	Loss (watts)	Loss value	Loss value	Ε03303 ψ	Ουσι φ	(WCCR3)	(ITICITICS)	70
Hees Enterprises Inc. (Ermco Transformers)	2,037.00	24,444.00	26,582.85	135	686	6,075.00	10,290.00	16,365.00	42,947.85	8	28	2.000
Howard Industries Inc.	2,231.00		29,114.55		674	6,750.00	10,110.00	16,860.00		6-8		
CG Power System USA Inc.	No Offer					0,100100	,	,	10,011100			
Bid Item 3: 75 kVA, 208/120 Volt, Three Phas	se Pad,					Nu	mber of units:	3			65	>1.8
Vendor	Unit	Extended	Price	No Load	Load	No Load	Load	Cost of	Life Cycle	Delivery	Height	Impedance
	Price \$	Price \$	w/tax \$	Loss (watts)	Loss (watts)	Loss value	Loss value	Losses \$	Cost \$	(weeks)	(inches)	%
Hees Enterprises, Inc. (Ermco Transformers)	4,955.00	14,865.00	16,165.69	137	1112	1,541.25	4,170.00	5,711.25	21,876.94	8	49	2.700
Howard Industries Inc.	3,999.00	11,997.00	13,046.74		984	1,991.25	3,690.00	5,681.25		6-8		
CG Power System USA Inc.	3,645.00	10,935.00	11,891.81	196	1002	2,205.00	3,757.50	5,962.50	·	6-8	52.1	2.280 E
Bid Item 4: 112.5 kVA, 480Y/277 Volt, Three	Phase Pad					Nu	mber of units:	2			65	>2.0
Venden	I lade	Frate is also al	Deiter	Neterd	Land	No. Lond	1	0	Life Corela	Dalimani	I I a lada 4	 
Vendor	Unit Price \$	Extended Price \$	Price w/tax \$	No Load Loss (watts)	Load Loss (watts)	No Load Loss value	Load Loss value	Cost of Losses \$	Life Cycle Cost \$	Delivery (weeks)	Height (inches)	Impedance %
Hees Enterprises Inc.(Ermco Transformers)	5,130.00	10,260.00	11,157.75	262	1046	1,965.00	2,615.00	4,580.00	15,737.75	8	49	4.000
Howard Industries Inc.	4,540.00	9,080.00	9,874.50		1194	2,002.50	2,985.00	4,987.50				
CG Power System USA Inc.	4,353.00	8,706.00	9,467.78		1190	2,197.50	2,975.00	5,172.50				
Bid Item 5: 225 kVA, 480Y/120 Volt, Three Ph	nase Pad.					Ni	mber of units:	2			65	>3.5
	•	Foto: 1 1	D.:	NI. I	1				1.0.0	D. F		
02-16-11 DB P <b>รัสทิศิติ</b> เกt - Attach.xls	Unit	Extended	Price	No Load	1 Load	No Load	Load	Cost of	Life Cycle	Delivery	Height	Impedance

Transformer Bid Evaluation					В	id Opening:	January 12, 20	)11				
Padmount				Tax (factor):	1.0875		Primar	y Windings:	Three-Phase, 12	000 Volt, 6	 0Hz, Delta C	Connected
			No Load	Loss \$/watt:	3.75				Single-Phase, 12			
January 25, 2011				Loss \$/watt:	1.25				<u> </u>			,
	Price \$	Price \$	w/tax \$	Loss (watts)	Loss (watts)	Loss value	Loss value	Losses \$	Cost \$	(weeks)	(inches)	%
Hees Enterprises Inc.(Ermco Transformers)	6,812.00	13,624.00	14,816.10	443	1644	3,322.50	4,110.00	7,432.50	22,248.60	8	49	4.800
Howard Industries Inc.	7,380.00	14,760.00	16,051.50	520	1716	3,900.00	4,290.00	8,190.00	24,241.50	6-8	55	5.100
CG Power System USA Inc.	5839.00	11,678.00	12,699.83	407	2416	3,052.50	6,040.00	9,092.50	21,792.33	6-8	52.1	3.580 E
Bid Item 6: 300kVA, 480Y/277 Volt, Three Ph	ase Pad,					Nı	umber of units:	2			65	>3.5
Vendor	Unit	Extended	Price	No Load	Load	No Load	Load	Cost of	Life Cycle	Delivery	Height	Impedance
	Price \$	Price \$	w/tax \$	Loss (watts)	Loss (watts)	Loss value	Loss value	Losses \$	Cost \$	(weeks)	(inches)	%
Head Enterprised Inc (Errors Transferre	7 004 00	14 640 00	45.000.10	404	0504	3.480.00	6 007 50	9.807.50	0F 700 00		40	4.500
Hees Enterprises Inc.(Ermco Transformers)	7,321.00	14,642.00			2531	-,	6,327.50	.,	25,730.68	8		4.500
Howard Industries Inc. CG Power System USA Inc.	8,716.00 7,435.00	17,432.00 14,870.00			2430 2679	4,275.00 3,967.50	6,075.00 6.697.50	10,350.00 10,665.00	29,307.30 26,836.13	6-8 6-8		4.300 3.550 E
CO T OWER DYSTERN COA INC.	7,400.00	14,070.00	10,171.13	323	2013	3,307.30	0,097.30	10,000.00	20,000.10	0-0	01.0	3.330 L
Bid Item 7: 1000kVA, 480Y/277 Volt, Three PI	nase Pad.					Ni	umber of units:	2			90	>5.3.0
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Vendor	Unit	Extended	Price	No Load	Load	No Load	Load	Cost of	Life Cycle	Delivery	Height	Impedance
	Price \$	Price \$	w/tax \$	Loss (watts)	Loss (watts)	Loss value	Loss value	Losses \$	Cost \$	(weeks)	(inches)	%
Hees Enterprises Inc.(Ermco Transformers)	15,094.00	30,188.00	32,829.45	1188	7196	8,910.00	17,990.00	26,900.00	59,729.45	8	63	5.800
Howard Industries Inc.	18,747.00	37,494.00	40,774.73	1242	7995	9,315.00	19,987.50	29,302.50	70,077.23	6-8	75	5.900 E
CG Power System USA Inc.	14,838.00	29,676.00	32,272.65	1179	8437	8,842.50	21,092.50	29,935.00	62,207.65	6-8	72.1	5.750 E
Bid Item 8: 1500kVA, 480Y/277 Volt, Three Pl	nase Pad,					N	umber of units:	4			90	>5.3
Vendor	Unit Price \$	Extended	Price	No Load	Load Loss (watts)	No Load	Load	Cost of Losses \$	Life Cycle Cost \$	Delivery	Height	Impedance
	Price \$	Price \$	w/tax \$	LOSS (Walls)	LOSS (Walls)	Loss value	Loss value	Losses \$	Cost \$	(weeks)	(inches)	%
Hees Enterprises Inc.(Ermco Transformers)	18,930.00	75,720.00	82,345.50	1557	10549	23,355.00	52,745.00	76,100.00	158,445.50	8	63	6.000
Howard Industries Inc.	23,423.00	93,692.00			10343	27,270.00	51,915.00	79,185.00	181,075.05	6-8		5.750
CG Power System USA Inc.	18,937.00	75,748.00			11985	22,395.00	59,925.00	82,320.00	164,695.95	6-8		5.750 E
			Total Price					-	Total LCC			
Hees Enterprises Inc. (Ermco Transformers)			218,599.46						375,290.71			
Howard Industries Inc.			249,336.56						413,897.81			
CG Power System USA Inc.			164,879.14	Less Bid I	tems 1 & 2				308,026.64	Less Rid I	tem 1 & 2	
CC I divol Cycloin CC/ (inc.	,		,	_000 D.a.	terns i u z				300,020.04	LC33 Dia i		1

Transformer Bid Evaluation				Bid	Opening: January 12,	2011			
Padmount			Tax (factor):	1.0875	Prim	ary Winding	s: Three-Phase, 12	000 Volt, 6	60Hz, Delta Connected
		No Load	Loss \$/watt:	3.75					Wye/6930 Volt, 60Hz
January 25, 2011		Load	Loss \$/watt:	1.25					
Total Price Plus Tax for the Bids of Transformers		214,197.26							
Prepared by: Weldat Haile	BSU Account No.	160.1496			total lifecyc	le cost =	371,266.01		
Sen. Power Engineer	BOO ACCOUNT NO.	100.1430			total incoye		371,200.01		

## RESOLUTION NO. 2011-16

A RESOLUTION OF THE LODI CITY COUNCIL AUTHORIZING THE PURCHASE OF PADMOUNT TRANSFORMERS FROM HEES ENTERPRISES, INC., OF ASTORIA, OREGON, AND HOWARD INDUSTRIES, INC., OF LAUREL, MISSISSIPPI

WHEREAS, in answer to notice duly published in accordance with law and the order of this City Council, sealed bids were received and publicly opened on January 12, 2011, at 11:00 a.m., for the purchase of padmount transformers, described in the specifications therefore approved by the City Council on October 6, 2010; and

WHEREAS, said bids have been compared as to life-cycle costs, checked, and tabulated as shown on Exhibit A attached; and

WHEREAS, the bids meeting the City's specifications with the lowest estimated lifecycle costs are shown below:

12 each 37.5kVA, I-Phase 120/240V	HEES Enterprises, Inc	\$18,778.95
12 each 75kVA, 1-Phase, 120/240	HEES Enterprises, Inc.	\$26,582.86
3 each 75kVA, 3-Phase, 208/120V	Howard Industries, Inc.	\$13,046.74
2 each 112.5kVA, 3-Phase, 480/277V	Howard Industries, Inc	\$ 9,874.50
2 each 225kVA, 3-Phase, 480/277V	HEES Enterprises, Inc	\$14,816.10
2 each 300kVA, 3-Phase, 480/277V	HEES Enterprises, Inc	\$15,923.18
2 each 1000kVA, 3-Phase, 480/277V	HEES Enterprises, Inc	\$32,829.45
4 each 1500kVA, 3-Phase, 480/277V	HEES Enterprises, Inc.	\$82,345.50

NOW, THEREFORE, BE IT RESOLVED that the Lodi City Council does hereby authorize the purchase of padmount transformers, as shown above, in the amount of \$214,197.27.

Dated: February 16, 2011

I hereby certify that Resolution No. 2011-16 was passed and adopted by the City

Council of the City of Lodi in a regular meeting held February 16, 2011, by the following vote:

AYES:

COUNCIL MEMBERS - Hansen, Katzakian, Mounce, Nakanishi, and

Mayor Johnson

NOES:

COUNCIL MEMBERS - None

ABSENT:

COUNCIL MEMBERS - None

ABSTAIN:

COUNCIL MEMBERS - None

City Clerk

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Transformer Bid Evaluation					В	id Opening:	January 12, 20	)11					_
Padmount				Tax (factor): Loss \$/watt:	1.0875 3.75		Primar	y Windings:	Three-Phase, 12 Single-Phase, 12				
January 25, 2011				Loss \$/watt:	1.25				Single-Friase, 12	ooo Gia. Vi	vye/0930 v	11, 00112	
January 25, 2011			Loau	LOSS #/Wall.	1.20								
Bid Item 1: 37.5 kVA, 240/120 Volt, Single Pt	nase Pad					N	umber of units:	12			28	>1.5	
Vendor	Unit	Extended	Price	No Load	Load	No Load	Load	Cost of	Life Cycle	Delivery	Height	Impedance	$\vdash$
	Price \$	Price \$	w/tax \$		Loss (watts)	Loss value	Loss value	Losses \$	Cost \$	(weeks)	(inches)	%	
Hees Enterprises Inc. (Ermco Transformers)	1,439,00	17,268.00	18,778.95	88	389	3,960.00	5.835.00	9,795.00	28,573.95	8	28	1.800	<del></del>
Howard Industries Inc.	1,504.00	18,048.00	19,627.20	90		4,050.00							E
CG Power System USA Inc.	No Offer	10,210.00	,02720			114 = 51 = 0		,					
													L
Bid Item 2: 75 kVA, 240/120 Volt, Single Pha	se Pad,					N	umber of units:	12			28	>1.8	
Vendor	Unit	Extended	Price	No Load	Load	No Load	Load	Cost of	Life Cycle	Delivery	Height	Impedance	<u></u>
Vendor	Price \$	Price \$	w/tax \$		Loss (watts)		Loss value	Losses \$	Cost \$	(weeks)	(inches)	%	
Uses Estanding by (Esman Transformers)	2,037.00	24,444.00	26,582.85	135	686	6,075.00	10,290,00	16,365.00	42,947.85	8	28	2.000	-
Hees Enterprises Inc. (Ermco Transformers) Howard Industries Inc.		26,772.00	29,114.55	150									
CG Power System USA Inc.	No Offer	20,772.00	23,114.00	100	0,7	0,700.00	10,110.00	10,000.00	10,07 110				
Bid Item 3: 75 kVA, 2081120 Volt, Three Pha	se Pad,					N	umber of units	3			65	>1 8	_
Vendor	Unit	Extended	Price	NoLoad	Load	NoLoad	Load	Cost of	Life Cycle	Delivery		Impedance	
	Price\$	Price\$	w/tax \$	Loss (watts)	Loss (watts)	Loss value	Loss value	Losses\$	Cost\$	(weeks)	(inches)	%	
Hees Enterprises, Inc (Ermco Transformers)	4.955 00	14,865 00	16,16569	137	1112	1.541 25	4.17000	5,711 25	21,87694	8	49	2700	-
Howard Industries Inc	3,999 00		13,046.74	177		1,991 25		5,681 25					
CG Power System USA Inc	3,645 00		11,891 81	196	1002			5,962 50	17,854 31	6-8	521	2280	E
_													
Bid Item 4: 112.5 kVA, 480Y/277 Volt, Three	Phase Pad					N	umber of units	2			65	>2 0	
Vendor	Unit	Extended	Price	NoLoad	Load	NoLoad	Load	Cost of	Life Cycle	Delivery	Height	Impedance	$\vdash$
75.140.	Price \$	Price \$	w/tax \$	Loss (watts)	Loss (watts)	Loss value	Loss value	Losses\$	cosť\$	(weeks)	(inches)	. %	
Hees Enterprises Inc (Ermco Transformers)	5,130 00	10,260 00	11,157 75	262	1046	1,965 00	2,615 00	4,580 00	15,737 75	8			
HowardIndustries Inc	4,540 00	9,080 00	9,874.50	267		2,002 50		4,987 50	14,862 00	6-8	45		
CG Power System USA Inc	4,353 00	8,706 00	9,46778	293	1190	2,197 50	2,975 00	5,172 50	14,640 28	6-8	52 1	2280	E
													E
Bid Item 5: 225 kVA, 480Y/120 Volt, Three P	·		Price	NoLoad	1 Load	NoLoad	umber of units Load	2 Cost of	Life Cycle	Delivery	65	>3 5	
PARAGunt - Attach xIn	Unit	Extended	Price	INOLOAG	1 L0au	NoLoad	Loau	Cost of	Life Cycle	Delivery	neigni	Impedance	,

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ransformer Bid Evaluation					ВІ	a Opening: 3	anuary 12, 201						
									hree-Phase, 120	100 Vall 60	Ha. Dolto C	opposted	
Padmount				Tax (factor):	1.0875		Primary	windings: 1	ingle-Phase, 120	DOO CEEL IAM	nz, Dena C	H 60Hz	-
				Loss \$/watt:	3.75				ingle-Phase, 120	000 Gra. vv	ye/ogao vo	ון, סטרוב	
January 25, 2011			Load	Loss \$/watt:	1.25								-
												<del></del>	$\dashv$
	Price \$	Price \$	w/tax \$	Loss (watts)	Loss (watts)	Loss value	Loss value	Losses \$	Cost \$	(weeks)	(inches)	%	—
	, ,,,,,,			,									
lees Enterprises Inc.(Ermco Transformers)	6,812.00	13,624.00	14,816.10	443	1644	3,322.50	4,110.00	7,432.50	22,248.60	8	49	4.800	
		14,760.00	16,051.50	520	1716	3,900.00	4,290.00	8,190.00	24,241.50	6-8	55	5.100	
Howard Industries Inc.		11,678.00	12,699.83	407	2416	3,052.50	6,040.00	9,092.50	21,792.33	6-8	52.1	3.580	E
CG Power System USA Inc.	5839.00	11,070.00	12,099.03	407	2710	0,002.00	0,010.00						
											65	>3.5	
Bid Item 6: 300kVA, 480Y/277 Volt, Three Ph	ase Pad,					Nu	mber of units:	2			00	70.0	
	,												
Vendor	Unit	Extended	Price	No Load	Load	No Load	Load	Cost of	Life Cycle	Delivery		Impedance	
VERIOU	Price \$	Price \$	w/tax \$	Loss (watts)	Loss (watts)	Loss value	Loss value	Losses \$	Cost \$	(weeks)	(inches)	%	Ш
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	7 004 00	14 642 00	15,923.18	464	2531	3,480.00	6,327.50	9,807.50	25,730.68	8	49	4.500	7
Hees Enterprises Inc.(Ermco Transformers)	7,321.00	14,642.00			2430	4,275.00	6,075.00	10,350.00	29,307.30	6-8	56	4.300	
Howard Industries Inc.		17,432.00	18,957.30			3,967.50	6,697.50		26,836.13		61.6		
CG Power System USA Inc.	7,435.00	14,870.00	16,171.13	529	2679	3,967.50	0,097.50	10,000.00	20,000.10				
													-
													<b>_</b>
Bid Item 7: 1000kVA, 480Y/277 Volt, Three P	hasa Pad			-		Nu	imber of units:	2			90	>5.3.0	Ь
sia item /: 1000kvA, 4801/2// voit, Infee P	iiase rau,												<u> </u>
		Fidor de d	Drice	No Load	Load	No Load	Load	Cost of	Life Cycle	Delivery	Height	Impedance	
Vendor	Unit	Extended	Price		Loss (watts)	Loss value	Loss value	Losses \$	Cost \$	(weeks)	(inches)	%	
	Price \$	Price \$	w/tax \$	LOSS (Watts)	LUSS (WallS)	LUSS VAIUE	LUSS VAIUE	200000 4					
						0.040.00	17 000 00	26,900.00	59,729.45	8	63	5.800	
Hees Enterprises Inc.(Ermco Transformers)	15,094.00		32,829.45			8,910.00			70,077.23				
Howard Industries Inc.	18,747.00	37,494.00	40,774.73						62,207.65				
CG Power System USA Inc.	14,838.00	29,676.00	32,272.65	1179	8437	8,842.50	21,092.50	29,935.00	62,207.65	0-0	7 2. 1	0.700	-
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Annual Control of the				1									1
	<u>.                                    </u>				<del> </del>	N	umber of units:	4			90	>5.3	3
Bid Item 8: 1500kVA, 480Y/277 Volt, Three F	rnase Pad,			<u> </u>		14	Cirioti di dinto.	<del>,</del>					L
				ļ	1	No Lood	Lood	Cost of	Life Cycle	Delivery	Height	Impedance	:
Vendor	Unit	Extended	Price	No Load	Load	No Load	Load		Cost \$	(weeks)	(inches)	%	T
	Price \$	Price \$	w/tax \$	Loss (watts)	Loss (watts)	Loss value	Loss value	Losses \$	COSLA	(MCCKS)	(1101100)	<del>                                     </del>	<del>                                     </del>
									450 445 50	8	63	6.000	1
Hees Enterprises Inc.(Ermco Transformers)	18,930.00	75,720.00	82,345.50	1557					158,445.50				
	23,423.00		101,890.05		10383	27,270.00	51,915.00						
Howard Industries Inc.	18,937.00							82,320.00	164,695.95	6-8	74.	5.75	기트_
CG Power System USA Inc.	10,937.00	13,140.00	02,0,0.00	1 . 100		, , , , ,						<b></b>	<del></del>
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									T. (-) 1 CC	<b>_</b>	<del> </del>	+	+-
		1	Total Price						Total LCC		<del> </del>	<del> </del>	+
		<b>†</b>	218,599.4	6					375,290.71		<b>_</b>	<del></del>	+
Here Entermises Inc. (Ermon Transformare)			,			+			413,897.81	1!	1	1	1
Hees Enterprises Inc. (Ermco Transformers)			249 336 5	61	1	1	i						_
Hees Enterprises Inc. (Ermco Transformers) Howard Industries Inc. CG Power System USA Inc.			249,336.5	6 4 Less Bid	Items 1 & 2					Less Bid	Item 1 & 2		

	No Load	Tax (factor): Loss \$/watt: Loss \$/watt:	1.0875 3.75 1.25		Primar	I ry Windings:	Three-Phase, 12 Single-Phase, 12	2000 Volt, 60 2000 Grd. <b>V</b>	0Hz, Delta 0 <b>Vye/6930</b> Vo	Connected olt, 60Hz
							Single-Phase, 12	2000 Grd. <b>V</b>	<b>Vye/6930</b> ∨c	lt, 60Hz
						l	1		1	1
	214,197.26									
SU Account No.	160.1496				total lifecycle	cost=	371,266.01			
	SU Account No.		214,197.26 SU Account No. 160.1496	,						